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ABSTRACT

A study examined the way Japanese schools help their students find jobs and considered whether those aspects that seem to account for their success would be desirable and applicable in the United States. Hiring occurs in a three-step process in Japan. First, Japanese employers assign a certain number of jobs to a high school, depending on their relationship with the school. Second, school staff select students to nominate for these jobs. Third, employers interview nominees and make final selections. That third step is very important in the United States but is the least important of the steps in Japan, where 81 percent of the applicants are hired when they are first nominated and, of those rejected, 85 percent are hired by the second firm for which they are nominated. Students essentially compete academically for jobs, since grades are the primary determinant of whether a student receives a nomination from school staff. In cases where schools fail to send them qualified workers, employers stop offering jobs through that school. Two advantages of the Japanese system are that employers have a clear picture of the grades their potential employees received and the students have a good incentive for keeping their grades up. In the United States it appears that job placement programs can improve work entry but the benefits are not long lasting and do not improve wage rates or job quality. The counselors and other staff at many public high schools in the United States are ambivalent about whether it is to their students' and the public's advantage to build strong links with businesses. A great deal more research should be conducted to determine whether the Japanese system of job placement would work in the United States. (A 46-item bibliography concludes the document.) (CML)

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LESSONS FROM JAPAN

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LINKAGES BETWEEN HIGH SCHOOLS AND WORK: LESSONS FROM JAPAN

American high schools often fail to play an active role in placing students in jobs. A principal reason is a widespread belief on the part of teachers and counselors that students themselves have the primary responsibility for finding employment (Horn, 1987). However, American youths actually confront great difficulties in locating and keeping jobs. By contrast, in Japan, where high schools help students find jobs, most youths enter the work force quickly and easily. Could the United States benefit from features of Japan's system? Would youths have more success in entering work if our schools helped them find work? This paper considers aspects of Japan's experience that may account for its successes and whether they would be desirable and applicable in the United States.

Recently, work-entry problems of youths have attracted much concern in the United States. National commissions of business, education, and government leaders have noted the obstacles youths face in entering the work force, among them unemployment, delayed work entry, and job turnover (Committee for Economic Development [CED], 1985; National Commission on Excellence in Education [NCEE], 1983). These problems reduce productive time, on-the-job training, and accumulation of seniority with its associated knowledge and rewards. While the national commissions have assumed that these problems indicate that revised educational programs could overcome

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Many of the ideas presented here were developed in my work with Takehiko Kariya. I appreciate his contributions to my thoughts on this topic. Of course, the opinions expressed here are my own.

these deficiencies, such reasoning is based on the assumption that current labor market mechanisms are fundamentally sound.

Similarly, labor market theory also assumes that economic mechanisms are fundamentally sound. According to market theory, when youths enter the labor market, they bring with them their human capital--a package of skills and abilities. They have the whole market to choose from, and after evaluating offers, they accept the best one. On the other side of the market, employers assess the value of applicants before offering them positions. Employers determine the criteria they use for selections, and then rely heavily on interviews to determine whether applicants meet those criteria (Bills, 1986; Crain, 1984). The system basically involves two parties--potential employees and employers--each making decisions based on economic considerations.

Schools and counselors are viewed as minor factors in the process. After providing information, counselors have little influence over youths' job applications or employers' hiring selections. According to the above economic model, this is as it should be. That is, employers who will be using the labor are in the best position to assess the kinds of skills they need, and they have the strongest interest in making the right decisions. In contrast, counselors are not fully aware of employers' needs and are more likely to be influenced by what might be considered inappropriate criteria. Consistent with market models, the hiring process is a simple market decision between youths and employers.

But economic market theory is based on certain assumptions, and if those assumptions do not hold, then the presumed efficiencies of markets may be questioned. In particular, market theory postulates that employers have

adequate and pertinent information for deciding which applicants to hire. If employers lack such information, or if they do not trust the information they get, then they will not select the most qualified applicants. Market theory also assumes that students have incentives to improve their productive worth. But if students lack such incentives, or if they are not aware of them, then they will not work to increase their human capital.

Given the severity of youths' work-entry problems, we must consider the possibility that existing labor market mechanisms are inadequate. This paper contends that some fundamental breakdowns have occurred. Many employers do not trust the information schools give them about applicants' achievements, and many students lack incentives to improve their labor market value. If employers are skeptical about the information they receive about applicants, programs designed to enhance youths' employment prospects will be ineffective. Similarly, programs to improve students' education in the absence of incentives will be no more effective than pushing on a string--great efforts can be expended without any motion.

These problems have an added impact on disadvantaged youth. Young people from low-income families are even more dependent on school-provided help in finding jobs because they have fewer instrumental family connections, social contacts, and opportunities for meeting employers (Granovetter, 1974). Moreover, if schools fail to provide information about students' achievements, the poor are hurt more than others because they have fewer resources for exhibiting their abilities. In addition, clear economic incentives may be even more important for poor students, who have faced discrimination elsewhere and who may need reassurance that opportunities are open to them.

In contrast, we shall describe the Japanese system in which linkages between schools and employers result in the successful transmission of information that employers trust and the extension of incentives that students respond to. Moreover, by giving schools a central role in the job application process and by making grades the main hiring criteria, Japan's system reduces the influence of social background in students' job placements. Although Japan's system is not based on market theory, its institutional linkages create many of the efficiencies claimed by market models.

The Breakdown of Signals About Youths' Productive Abilities.

The market model assumes that employers receive enough information about applicants to make sound hiring decisions. Yet, there are practical limits to the amount of information employers can obtain. Employers must exert considerable effort to obtain information (signals) about applicants' abilities, and they may not know how to interpret it. Acquiring information has costs, so employers may limit their search to information they consider "cost-efficient" (Spence, 1974).

What information do employers want? Economic theory suggests that employers place emphasis on indicators of applicants' productive abilities. The above-noted national commissions (CED, 1985; NCEE 1983) also found that employers want applicants to have greater basic skills in reading, writing, and math. This implies that employers want information about applicants' school performance through indicators such as achievement test scores and grades. Of course, this is just what teachers tell students, although students often scoff at the advice: Poor grades will hurt their chances of getting good jobs.

However, research points to a breakdown in that relation. In fact, employers do not respond to the criteria that theory, national commissions, and teachers expect them to value. Studies find that grades and test scores have little effect on determining which youths obtain jobs and which secure better jobs or higher wages. Using national survey data from the National Longitudinal Study of the High School Class of 1972, Griffin, Alexander, and Kalleberg (1981) found that aptitude, class rank, and other school information have a small and often insignificant effect on the placement of high school students who enter the work force immediately after graduation. They conclude that "none of the variables included in these equations...has substantial impact on positioning persons in either the primary or secondary sector or even on employment/unemployment--though status levels do tend to be somewhat more predictable" (p. 212).

Using the same data, Meyer and Wise (1982) found that class rank in school had insignificant effects on wage rates two years after graduation and only barely significant effects four years after graduation. Willis and Rosen (1979) found that one standard deviation increase in math and reading scores of high school graduates lowered first-job wages by four percent. Bishop (1987) found that although academic achievement raises productivity, it has a relatively small influence on youths' wages.

Why don't grades and test scores influence hiring decisions? In a survey of employers, Crain (1984) found that employers considered grades important for hiring college graduates but not for hiring high school graduates. More recently, Bills found that none of the employers he interviewed were concerned with grades (personal communication, May 27, 1988). Employers rarely obtained school transcripts, and some employers did

not even request them. One employer actually refused to consider applicants with high grades because of a concern that academic achievement was gained at the expense of social skills. A bank personnel officer reported that he sought people with social skills and felt that extracurricular activities were more important than good grades. Both Crain and Bills found that employers cared more about the quality of academic experience in college than in high school.

In sum, students who scoff at grades are apparently not mistaken. Good grades have a small bearing on the early jobs of high school graduates, and employers report that grades are not a criterion for hiring high school graduates or assigning them to jobs.

Why don't employers value grades? Given their desire to have employees with strong basic skills in reading and math, we would expect employers to use school achievement in making hiring decisions. That they do not is perhaps because they question the reliability of the grade reports they receive. We shall return to this topic later.

Regardless of the reason, employers' disregard of youths' school achievement indicates a profound breakdown of signalling capacity. The information that is potentially the best indication of youths' reading, writing, and math skills is not being used.

The Breakdown of Incentives

Given employers' hiring practices, it is not surprising that work-bound high school students see no incentive to improve their grades. If employers do not use grades or test scores in assessing potential employees, then students see no reason to work to improve them.

Although we expect schools to offer academic incentives to students, that is not always encouraged by schools' practices (Sedlak, Wheeler, Pullin, & Cusik, 1986, p. 13):

> During the twentieth century, adolescents have progressively disengaged themselves from their high school's academic experience.... Traditional incentives which once kept at least a large percentage of the high school student body modestly involved in academic work have eroded for both ideological and economic reasons. The collapse of these incentives has left many classrooms filled with indifferent and disaffiliated students.

American high schools have dramatically lowered their standards for graduation, so academic credentials are no longer a meaningful signal of academic achievement. Students have learned that they can receive a diploma with little effort, so they see little incentive to work harder in school if they have no college plans. Teachers still have the power to fail students and ultimately to prevent them from graduating, but because authorities are always reluctant to use all-or-nothing penalties, failure is often not a credible threat. As a senior in a working-class school told me, "As long as I don't cause too many hassles for teachers, they will let me get by and graduate" (Rosenbaum, 1976).

In part, the lack of incentives in high school may be due to the classroom curriculum itself. When asked, "What is the most important thing you have learned or done so far in this class?" students in upper-track classes responded (Oakes, 1985, pp. 69-70): "Learning political and cultural trends in relation to international and domestic events...about businesses--corporations, monopolies, oligopolies, etc., and how [they] start, how they work, how much control they have on the economy...learned about different theories of psychology and about Freud, Fromm, Sullivan." In contrast, students in low-track classes reported (Oakes, 1985, pp. 70-72,

88-89): "How to blow up light bulbs.... Really I have learned nothing.... I don't remember.... To be honest, nothing.... Manners.... How to shut up." These responses imply that students are presented different curricula in different tracks, and lower tracks offer much less incentive to work in class.

However, these variations in incentives may extend beyond the formal curriculum. Sedlak et al. (1986) argue that teachers have been allowed to make a bargain with students that if they demand little, students in turn will expect less from teachers. "In most high schools there exists a complex, tacit conspiracy to avoid sustained, rigorous, demanding, academic inquiry" (Sedlak et al., p. 5). This tacit agreement has increasingly reduced educational standards in the twentieth century.

Noncollege-track students are those most affected by this situation. Students pursuing a college-bound curriculum may have experienced a small dilution of academic standards, but college admissions requirements have limited the rate of decline. By the same token, employers could presumably provide a similar constraint in limiting the declining standards for noncollege students--if they wished. The fact that teachers and students can reach a bargain to lower standards for work-bound students implies that employers have no impact on setting standards or do not care about them. However, if employers' requirements had a similar impact on schools as do those of colleges, and if employers had different (or more rigorous) hiring criteria, they could exert equivalent influence.

Stinchcombe (1964) sees the lack of articulation between schools and employers as an important factor in determining youths' school behavior. For college-bound students, school success clearly influences which colleges

they attend and their college performance, so college-bound students have clear incentives to work in high school. But work-bound students see little relationship between school activities and the kinds of jobs they will get or their job performance. As a result, work-bound students are more likely to have rebellious attitudes and to engage in rebellious activities (Stinchcombe, 1964). Such students see school as boring, grades as unimportant, and schoolwork as unrewarded.

These difficulties in the transition from high school to work have not been addressed by current reform efforts. Recent "school-work partnerships" focus on providing services to schools, such as tutors, staff developers, technical advisors, additional curriculum materials, and work-study placements. Yet these "partnerships" do not often provide explicit linkages between school achievement and hiring after graduation, nor do they improve the signalling value of grades or students' incentives to work in school. Even the Boston Compact, which offers jobs if overall average achievement scores improve in a school, does not link job placements to the achievement scores of individual students (although hiring is contingent on graduation).

The Japanese system deals with these problems far differently than does that of the United States. Japan's direct links between schools and employers improve both the information employers receive and students' incentives to work in school. Our intention is not to argue for importing Japanese practices but to examine them and consider whether they might be desirable in the United States and to what extent similar practices may be utilized here. By describing a system very different from our own, this paper indicates some policy choices that many Americans may not be aware of and provides a broader perspective on our own practices.

The Japanese System of Linking School and Work

The school-to-work transition in Japan differs markedly from that experienced in the United States. Most Japanese youths find their first job without entering the labor market. Their job applications are controlled by schools, and students are hired before they graduate.

Hiring occurs in a three-stage process; the first two stages are not replicated in this country. First, employers assign a certain number of jobs to a high school, based on employers' relationships with each school. Second, school staff select students to nominate for these jobs. Third, employers interview nominees and make final selections. The third stage--a very important one in the United States--is the least important in Japan, where employers hire more than 81 percent of applicants when they are first nominated, and, of those rejected, 85 percent are hired by the second firm for which they are nominated. Therefore, this paper focuses on the first two stages, the description of which is based on a report by Rosenbaum and Kariya (1987).

In the first stage, students' job opportunities are stratified by high schools. In distributing job offers, employers offer more and better jobs to higher-ranked schools. Analyzing a survey of teachers in 1,408 work-bound high schools in Japan, we found that the higher a school's rank, the higher the percentage of work-bound graduates hired by contract employers. Moreover, after controlling for a school's number of contract employers, school rank continues to have a significant direct influence (Rosenbaum & Kariya, 1987). This finding implies that higher-rank schools have a larger yield of jobs per contract employer. Since most students seek jobs among

those offered to their schools, these quotas largely define students' job opportunities.

Employers base their quotas for a school on their previous experience with it, which tells them what they can expect from its graduates. Recruitment and job placement are stabilized by relying on highly trustworthy "semiformal employment contracts" (jisseki kanke'i--literally, "relationship based upon past results," Hida, 1982; Iwanaga, 1984). Although no formal contract exists, each school has ongoing relationships with specific employers ("contract employers") with whom they deal every year, while each employer retains relationships with specific schools ("contract schools").

The influence of contract employers is much greater than their relatively small numbers would indicate. Our school survey shows that each school has 77 contract employers on the average, which is only 11 percent of the average number of employers (684 firms) seeking to hire a school's graduates. Yet the survey also reveals that these few employers hire half of all the work-bound graduates from each school on the average. Moreover, these employers, which are larger firms, tend to offer the most desirable positions--those with more job training, more job security, and better career advancement opportunities. Thus, contract employers dominate the labor market for each high school's graduates, and each high school relies heavily upon a few contract employers to place its graduates into jobs.

In the second stage of recruitment, students are nominated for particular jobs. About eight months before graduation, seniors are told what jobs have been offered to the school, they choose one, and teachers advise them about their prospects. A committee of school staff nominates

and ranks youths for job openings; a nomination permits a student to apply to an employer. Students can apply to only one job at a time. Employers cannot choose among all interested applicants, only those selected by school staff, and students cannot apply to an employer without the school's nomination. Thus, students compete for jobs before they enter the labor market, and the first selections are made by school staff.

These selections are based on many aspects of school performance, but our analyses find that grades are the primary determinant. Using survey data from 964 seniors in seven work-bound high schools in one Japanese prefecture, we found that grades have a large impact on students' job placements, while the effects of rule violations, lateness, and leadership in extracurricular activities were much smaller. These findings were also replicated using the Japanese High School and Beyond survey (Japanese Ministry of Education, 1983; Kariya & Rosenbaum, 1988). It might be noted that the U.S. High School and Beyond survey showed that grades had a much weaker influence on obtaining jobs in the United States than they did in Japan.

These findings appear to refute arguments that linkages between schools and employers might allow schools to weaken their commitment to meritocratic criteria. Indeed, our results found the opposite to be the case: Grades have a significantly <u>stronger</u> influence on students' chances of getting good jobs from employers with links to their school than they do for noncontract employers. Rather than requirements being lowered by the relation between contract firms and schools, youth are held to an even more stringent achievement requirement in order to obtain desirable employment within contract firms.

Responsiveness to Maintain Contracts in Japan

Obviously, maintaining these contracts is crucial to a school's success in placing its graduates in jobs and to an employer's success in recruiting capable employees on a continuing basis. Schools must select students who satisfy employers' criteria in order to receive future job allocations, and employers are interested in maintaining a stable source of employees of dependable quality. These relationships impose important mutual obligations on schools and employers.

In fact, schools make great efforts to nominate graduates who meet employers' requirements. School staff efforts to please contract employers seem to be reinforced by an implicit threat of sanctions. In cases where schools fail to send them qualified workers, contract employers stop offering jobs. While the actual frequency of such incidents is not known, teachers perceive the loss of job slots as a real risk, and they feel compelled to recommend qualified students in order to maintain relations with contract employers.

Even though many teachers are uncomfortable about relying heavily on grades, they feel constrained to use grades as the primary, and usually decisive, criterion for student nomination. Some teachers also would prefer to select more students than employers request, letting several students apply for a single job. Yet our survey indicated that 74 percent of the schools we studied do not recommend more students than employers demand. The survey also found that 48 percent of schools do not nominate less qualified students as ranked by school grades, even if it means they fall short of filling their quota. They are especially careful in selecting nominees for the more desirable jobs.

Thus, schools are strongly constrained to make meritocratic selections. Nonacademic criteria or no selections would endanger their relations with an employer, and so they stick to using grades and trying to select the assigned number of students.

Because employer expectations provide strong institutional controls to keep selections meritocratic, social background has little influence on entry jobs. While a father's socioeconomic index has significant effects on children's occupational attainments in Japan (Fujita, 1978)--as it does in the United States (Blau & Duncan, 1967; Featherman & Hauser, 1978)--the impact of social standing has declined for Japanese labor market entrants in recent years. For Japanese males born between 1940 and 1949, neither the fathers' education nor occupation has a significant influence on the nature and availability of entry jobs, although these variables have larger significant effects on entry jobs of males born in the 1910s (Fujita, 1978). The path coefficients of fathers' occupation decline from .250 for sons born in the 1910s, .182 for the 1920s, .089 for the 1930s, and .058 for the 1940s (Fujita, 1979). Since these are effects on <u>entry</u> jobs, they indicate historical changes, not age effects. Moreover, comparing 1965 and 1975 Japanese national social surveys, Tominaga (1979) finds that the effects of fathers' education and occupations on sons' entry occupations have decreased markedly.

Moreover, the committee system of final selection further reinforces these pressures. Teachers reported that using grades as the selection criterion made it easier for the committee to agree on which student to nominate. Indeed, because grades are the acknowledged principal criterion,

teachers have difficulty recommending a student to the committee if the student's grades are not adequate.

Japanese employers are uncomfortable about relinquishing their control over hiring, and they insist on interviewing applicants to make sure they are suitable. However, they still feel constrained to accept schools' nominations whenever possible. Several employers mentioned cases where they hired students they ordinarily would not have selected because they wanted to avoid damaging their relationships with the students' schools. Such undesired hirings are the price employers pay for the benefits of the contract relation.

The amount of control employers relinquish can be seen in the way they respond to schools' nominations. As noted, employers hired more than 81 percent of nominees applying for their first job, and of those who did not get their first choice, 85 percent were hired for the second job to which the school nominated them. Fewer than 3 percent of all students had to apply to three or more employers. Since some students apply to noncontract employers or apply with weak rankings by schools, contract schools' influence is probably even stronger than these numbers imply.

Employers' most remarkable concession is their hiring practices in periods of recession. In these periods, employers still try to maintain their hiring relationships with contract schools, even if they do not need new workers--although they may reduce the numbers they recruit from contract schools. Of course, in these periods, they stop recruiting from non-contract schools entirely (Amano, 1982).

Employers value these semiformal contracts with schools for several reasons. Losing a valued relationship with a school would make it difficult

to preserve stable sources of recruits, who would be offered to other employers. Employers also value these semiformal contracts with schools because they believe that contracts help them recruit workers with similar quality every year from the same schools.

Obviously, this system is radically different from the conception of labor markets developed from the U.S. experience. The essence of semiformal contracts is described by a teacher from a Japanese commercial high school: "Getting jobs is only a one-time experience for individual students, but it is repeated year after year for schools." This observation contradicts a fundamental assumption in market models--that job hiring is an ahistorical event between a particular individual and a particular employer in response to current economic conditions. Rather, the contractual theory says that every hiring decision represents a continuation of an institutional relationship with a long history, and it signals whether that history is being respected and whether it will continue. Changing economic circumstances may affect the numbers involved, but the impact of these fluctuations will be cushioned by both parties' interest in maintaining the relationship. Temporary economic costs of maintaining the informal contract are regarded as investments in the future, not as expenses.

Distinctive Attributes of the Japanese System: Workable in the United States?

The Japanese hiring procedure differs from the U.S. system in many respects. Some features seem desirable to Americans, while others seem undesirable. The Japanese system is governed by institutional arrangements, so it tends to be more formal. It is hard to imagine the strong links between Japanese schools and employers operating in the United States, or to

imagine U.S. schools dictating which jobs students can apply for. Yet, as we shall note, some U.S. schools do have such arrangements with employers, just as some U.S. schools dictate which colleges students can apply to, so these practices are not entirely alien to this country and are worthy of examination.

Moreover, some differences that initially seem undesirable may have some positive features. For instance, while the Japanese system limits youths' choices after graduation, Americans dislike practices that limit choices. However, Japanese youths can make choices during their school years, and they have received clear information about how to get better jobs. Because American youths may lack such insight, U.S. students' relatively greater freedom of choice is a mixed blessing.

Japanese youths have fewer difficulties in entering the work force. They have much lower unemployment rates, both absolutely and relative to adult unemployment rates, than do their U.S. peers. They also experience much less delay in entering the work force and much lower job turnover. While U.S. high school graduates do not settle into stable work until ages 22 to 25, Japanese youths enter a more permanent work environment after graduation. They can begin gaining skills and experience earlier, and employers can invest in them and train them for more skilled positions. In contrast, U.S. employers are reluctant to hire and invest in youths under age 22, perhaps because of their high turnover. Of course, we cannot be certain that if the United States emulated Japanese practices, the same outcomes would result.

Some of the advantages of Japanese practices are particularly relevant to the areas we have noted as problems in the United States: the creation

of (1) signals to employers about applicants' value and (2) incentives to students to improve their productive abilities. To what extent could the United States gain by incorporating aspects of Japanese practices? Could Japanese practices be applied in the United States, and would they reduce work-entry problems here? In the following section, we shall examine some instances where comparable features are implemented in the United States--how they work and whether they contribute to improving youths' work-entry experience.

Does Job Placement Improve Work Entry?

One feature of the Japanese system that seems applicable in the United States is the direct placement of students in jobs while they are still in school. In this country, some reform efforts have set up direct placement services to help youths find jobs. Although these programs have had some benefits, they have been small and short-term.

The most pertinent example was a youth employment service in high schools supported by the Department of Labor. Jobs for Delaware Graduates (JDG) tried to improve students' motivation and job-search techniques, and it helped them locate employment opportunities. An evaluation (Sum, 1983; Hahn & Lerman, 1985) reported that three months after program participation ended, 54 percent of participants and 38 percent of a comparison group were in full-time jobs, and this advantage declined only slightly over the next five months. Moreover, the participants from low-income families experienced the largest gains. However, JDG participants did not obtain better jobs than the comparison group.

Two other programs also had modest success. The Jobs for Youth (JFY) and the 70001 Programs offered career counseling, job readiness training,

some remedial education, and placement services for out-of-school youth, 90 percent of whom were high school dropouts. The evaluation found that after nine months, 39 percent of participants were working full-time, earning an average of $4.31 an hour, in contrast with 19 percent of the comparison groups, who were earning an average of $2.41 an hour. However, after 14 months, the gains for one of the programs had vanished, while the other program maintained a gain, but at a lower rate.

In addition, a large share of employers were dissatisfied with the program youth they hired. Nearly half the employers said participants were absent more, less punctual, lazier, and more likely to quit than their other employees (Hahn & Lerman, 1985).

A number of programs, though not making placements for youths, have taught them how to search for jobs. These program have also had some success in helping high school graduates find jobs more quickly, but the jobs have been no better than those found by comparison groups, and the small benefits tend to decline over time. As one analyst (Burtless, 1984) concluded:

> Nearly <u>all</u> manpower strategies for the disadvantaged, including those that are far more expensive than job search training, share the same characteristic, they raise the amount of time that workers spend employed, but have little effect on their hourly wage rates. These gains in employment are valuable, however, and should not be lightly dismissed. They are simply too small to have a major effect on the poverty rate.

Apparently, job placements can improve work entry, but the benefits are not long-lasting and do not improve wage rates or job quality. This is understandable: Placement can reduce the time it takes youths to get a job, and so it can save them from the demoralizing experience of a lengthy job search. Yet these programs--beginning in the last year of high school or

after youths dropped out of school--have been started too late to have much influence. By that time, a program cannot give youths experiences that would signal their value to employers or give students incentives to learn more in school.

To achieve these goals, placement programs are not enough. To improve the transition from high school to work, placement systems must give employers dependable signals about applicants so that employers will care about and invest in these students. Placement systems must also give students incentives to increase their productive capability, and incentives must be sufficiently clear for students to see them in the early years of junior high school. The Japanese system involves not only placement; it creates signals and incentives.

Is Linkage Applicable in the United States?

Can more extensive linkages between high schools and employers be achieved in the United States, where they are not emphasized? Indeed, Americans are sometimes suspicious of linking public schools and employers, perceiving employer preferences for certain schools as favoritism. Moreover, the market model views exclusive links to certain schools as inefficient, because such ties may prevent employers from getting the very best applicants from the entire labor market. School-employer relations also raise concerns that employers may exert excessive influence over public school policies. As Timpane (1984) asked, "Will public education retain its integrity...if the interest of business in education...continues to grow?" School staff are reluctant to make selections for employers, and employers are wary of becoming locked into obligations to trust school counselors' views or into hiring a fixed number of youths, regardless of their hiring

needs at a particular time. This mutual reticence may explain the low visibility and perhaps the low occurrence of direct links.

Direct links between high schools and employers are rarely discussed in the educational literature, and, consequently, we have little knowledge about how many and what kinds of relations exist. However, the above-noted mistrust of such links suggests that they are likely to be rare.

Indeed, surveys indicate that American youths rarely use high schools for finding jobs. In the High School and Beyond surveys in Japan and the United States, youths were asked how they searched for jobs (NSK, 1984; National Center for Educational Statistics [NCES], 1983). While more than 75 percent of Japanese high school students used schools' job placement activities to find employment, fewer than 10 percent of U.S. high school students did so. Japanese schools are far more involved in allocating students into the labor force than are U.S. schools.

Perhaps as a result, American high school graduates take longer to enter the labor force than do Japanese high school graduates. Of high school graduates not attending college, almost all Japanese students (99.5 percent) start working immediately after graduation (Ministry of Labor, 1982). In contrast, only 49 percent of American graduates have obtained jobs by the time they graduate, and most of these (58 percent) are only continuing the part-time jobs they had in high school (Nolfi, Fuller, & Corazzini, 1978).

School counselors define their responsibility as providing information about job search techniques, but not as directing students to specific jobs; and they often do not monitor students' employment outcomes. Even when counselors are aware of students' difficulties in obtaining jobs, they do

not consider this to be their responsibility--although, at the same time, they may closely supervise the choices of college-bound applicants.

Clearly, there is great mistrust of linkages in the United States. Few students use schools to help them find jobs, few counselors consider it their responsibility to intervene with direct assistance, and many job searches begin only after graduation, further limiting schools' ability to influence the process. But could greater linkages be achieved by U.S. schools, and would they reduce work-entry problems in this country?

Linkages in U.S. High Schools

Because few studies have described high school-employer linkages in the United States, the following is based on observations gleaned from informal, unsystematic inquiries (Rosenbaum, 1976)..

In a high school I studied in a working-class community, the head guidance counselor had a strong relationship with several large employers. Recruiters from these firms would tell the counselor how many secretaries and clerical workers they were hiring each spring, and the counselor would recommend the best students in the business program. The counselor would only provide the names of students from that program, and he would recommend those with the best grades for the most desirable firms. Employers rarely asked his assessment in hiring for blue-collar and lower white-collar jobs.

The counselor implied that his links with employers were based on informal personal relationships. While he considered his cooperation to be a service for organizations in the community, he did not believe it was a formal part of his job. Indeed, he was not sure that it was appropriate for a public institution to show these special relationships with certain

employers. This counselor was unclear about any normative, professional, or legal standards that should guide his appropriate role.

Similarly, counselors responsible for vocational programs in a large U.S. city system reported in a series of interviews that they cooperated with local employers who sought to hire the school's graduates.[1] The counselors did not initiate these relationships, but they did respond to employers' requests. Like the counselor in the preceding example, these counselors did not view this as part of their official duties, but they did try to accommodate local employers. Nor did they stress grades for recommending students unless employers asked them to do so. These counselors did not keep records of placements they made or even of the actual job outcomes of the schools' graduates. When asked what employers he worked with, one counselor produced a list, but it was fifteen years old, and he did not have a more recent one.

The passive, almost reluctant participation of school counselors in job placements suggests some ambivalence about this activity. This is consistent with recent articles on school-work partnerships that express concern about business having undue influence over the school curriculum (Timpane, 1984).

The fact that there is little mention of linkage practices in the literature is surprising. Some observers assert that public schools are subservient to the interests of employers (Bowles & Gintis, 1976; Spring, 1986), but these accounts are vague about the nature of this subservience. The above examples indicate that cooperation between business and schools is very limited, with both parties hesitant to increase it. The only matter

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[1] These interviews were conducted by Takehiko Kariya in 1987.

that is clear is how little we know about this issue. Evidently, more extensive inquiry is needed.

Models of Linkages in the United States

Given the meager evidence on links between public high schools and employers, we may learn more about linkages in the United States by examining relations between employers and other schools. The concerns about using public resources for private interests do not arise for private schools, so the latter may provide examples of more extensive links. Perhaps the best models for these links in the United States can be seen in the ties between business or vocational schools and employers.

A study of a top-rated graduate school of management provides a detailed picture of how an American school can interact with employers (Burke, 1984). Many employers regularly recruit from this management school, hiring about the same number of graduates every year. If the number declines one year, the school's placement office immediately takes notice and responds. Recruiters from large firms said that they preferred this school's graduates to those of lower-ranked schools because they thought the school admitted more capable students and provided better training. Despite a common assumption that American employers view grades as irrelevant to jobs, recruiters sought out students with the best grades from this management school. Students with the best grades tended to receive the most job offers and the best paying jobs (investment banking and consulting). Students were aware of this selection criterion, and they worked very hard to earn good grades.

Private postsecondary vocational schools provide another model of how links work in the United States. These schools provide training after high

school, often for technical jobs. Little research has been done on these schools (Wilms, 1974), and I know of no studies that examine their links with employers.

I recently interviewed a high-level administrator in one such school. She reported that the school focuses all of its job assistance activities on meeting the needs of employers. The staff identifies major employers in the job areas in which the school has programs and meets with these employers to define job requirements, specific requisite skills, and a curriculum for teaching them. Obviously, job placement is a core function for this school, because its main attraction for students is preparation for specific jobs. As a result, it has an large placement department consisting of a placement director, counselors, and staff for developing links with new employers. Any recruiter who wants to visit is given support and assistance, even if the school has to rent additional facilities.

This school has developed strong links with some employers. For instance, it is the preferred supplier for the trouble-shooting department at one Fortune 500 technology corporation. The school also turns out half of the national job market for the repair of certain kinds of equipment. "We must know what companies are now using and be up to date," the administrator reported.

Quality control of students is also important. The school gives a series of exams to students at the end of the year to assess how each department is meeting its objectives. Although these tests are not used to assess students, counselors screen students to make recommendations for the best employers and best jobs. The criteria counselors use for their

recommendations are not explicitly stated, but my informant said that grades were an important component.

Private vocational schools appear to be as close as U.S. schools come to having linkages with employers similar to those found in Japanese high schools. Private vocational schools have strong and explicit links with employers, and these schools make special efforts to maintain them, nominating certain students for jobs and using grades as a significant selection criterion.

Yet, there are important differences. Although grades seem to influence job placements, the private vocational school cited above did not explicitly define grades as a criterion for recommendation, so students might not see clear incentives to improve their grades. Moreover, although this private vocational school had preferential links with certain employers, it did not guarantee placement. For instance, the above-noted technology corporation that preferred this school's graduates did not hire in periods of recession (even though we might suppose that it is in its interest to do so if it wants the main supplier of its technical personnel to survive).

Could public high schools develop similar links with other institutions? Of course, public high schools do have very strong links with colleges. The transition from high school to college in the United States is explicitly defined. Like the high school-employer linkage in Japan, American high school counselors often develop long-lasting, trusting relationships with recruiters from certain colleges, and their recommendations may carry considerable weight. In addition, grades have strong influence on college admissions in the United States, just as they do

on job selections in Japan. Moreover, standardized tests (Scholastic Aptitude Tests and American College Testing exams) provide a check on counselors' recommendations and grades, just as tests do in Japan.

Indeed, it might seem that the school-to-work transition is the only area where links are so undeveloped in the United States. Close relationships exist between high schools and colleges, colleges and graduate schools, colleges and employers, and graduate schools and employers. The absence of links between public high schools and employers must be due to some peculiarity about this relationship. Is it because employers don't care about high school graduates? Is it because high schools consider college to be the only important postgraduate goal and therefore have little interest or responsibility in placing youths in work? Is it because of some taboo about public high schools serving private employers? Or does coordination actually exist that we do not see?

Is it possible for public high schools to develop links with employers? In principle, there seems no obstacle to such relationships. Do they not exist, or are they just not discussed? Even if disapproved, informal links could still arise from the continual interaction between schools and local employers. We do not know to what extent such links have arisen and what forms they take. Obviously, there is a great need for research in this area.

Proposed Research

It is remarkable how little is known about how U.S. public schools handle coordination with employers. Clearly, there is an enormous need for research on this subject. First, we need studies of the variation in

current practices and analyses of their effects. Second, experiments are needed to test causal influences of linkages.

Surveys of Practices and Analyses of Outcomes

Unlike the educational systems in other nations, the U.S. system is extremely decentralized. Instead of having a single national system, we have many different ones, each influenced by its local community. Moreover, American ideology seems to rely on market theory, which is militantly anti-linkage. As a result, if linkages exist, they tend not to be publicized. If we are to understand how linkages between high schools and employers operate, we need a systematic survey of current practices.

Despite an implicit disapproval of linkages, we suspect that schools and employers have developed relationships. Repeated interactions are likely to create interdependencies. However, the links that arise are probably informal and limited in scope, since, as noted, few students report that schools have assisted in their employment searches. We need to investigate this question in greater detail.

What Kinds of Links Exist?

We need a systematic survey of linkage practices and how they operate. Do schools or employers initiate contact? Does each employer have links with only a few local schools or with many schools, to the whole school, to just certain vocational programs, or to just a few teachers? Do employers use links to fill all jobs, or only certain jobs? Are these the most desirable jobs, as they are in Japan?

Are school staff and employers responsive to each other? What control mechanisms are in place to keep them responsive? Do they make sacrifices for each other, and under what circumstances can they reduce their mutual

commitments? Do schools worry about sanctions from employers if they recommend unsatisfactory students? Do employers worry about getting good students in the future if they have treated previous recruits badly?

How do counselors and vocational teachers contribute to links? What do they know about available jobs for high school graduates? How do they assist youths' job search? Under what circumstances do they feel responsible for helping students find jobs, and how do their efforts affect students' success in finding jobs?

Do linkages help schools make their curriculum responsive to the kinds of jobs that are locally available? In the city school system noted earlier, an electronics teacher reported that he had a good program, but there were not any openings for the school's graduates because all of the jobs had moved out of the area. As a result, the program's graduates either relocated or took jobs unrelated to their training. Nonetheless, there was no effort to drop the program. Japan's linkages make such a situation unlikely, and we suspect greater coordination in the United States would do the same.

Why do so few students rely on schools for finding jobs? Can schools help youths and employers get together? Do school-employer linkages give employers and youths better information? Do they lead to better matches and less turnover?

The first step should be a small-scale study to see whether counselors or teachers would report linkage practices. In addition, this exploratory study could examine why school staff feel reluctant to discuss links.

What criteria do counselors use for recommending students? What do they think employers are looking for--grades, attendance, deportment,

special programs or courses? When do selections occur? Is there prescreening for vocational programs, screening over the course of the program into different tracks, or screening afterwards in recommending certain individuals? How do selections affect disadvantaged students? Are there different criteria for different students?

How Do Employers Affect Selection Criteria?

The previously reviewed literature raises many questions about employers' selection practices that need to be studied. Why are employers reluctant to use grades as a selection factor? Do they fail to use them only because transcripts are difficult to obtain or interpret? Bishop (1987) reports that one large insurance company requested school transcripts from many schools but did not receive them. The frequency of such occurrences needs further study. However, if this were generally true, one still needs to examine which employers use grades in hiring decisions when transcripts are provided. Or, are employers prevented from using grades because of nondiscrimination requirements imposed by court decisions (e.g., Griggs vs. Duke Power Co.) and by the Equal Employment Opportunity Commission? Is the nonuse of grades attributable to schools' failure to send transcripts, employers' failure to ask for them, or employers' desire to complete hiring before transcripts arrive?

Do employers feel grades are useful in assessing applicants for higher-level jobs but not for most entry-level jobs? Because large firms in Japan provide the strongest impetus for grade-based selections as well as offering greater job training and advancement opportunities, it may be that grade-based selections are related to a firm's job-ladder advancement possibilities. The causal direction of this relationship requires some

investigation. Do firms decide to forego offering job training and advances because they cannot find youths with the requisite abilities, or do they not select able youth because the positions they have available do not provide advancement opportunities that would utilize the new employee's skills?

How do links differ among types of jobs, firms, and different economic climates? Do employers maintain some hiring in a time of economic downturn? Do some employers try to preserve their relationships with certain schools regardless of market conditions?

Do Linkages Increase Motivation in School and Work?

In addition to providing selection mechanisms, linkages could also provide a means of increasing students' incentives. In Japan, students generally show greater motivation and academic achievement than do their American counterparts, and we have suggested that Japan's linkage system could help to explain this difference. Obviously, there are many other dissimilarities between the two nations, so we cannot be certain of the actual causal mechanism explaining the national difference. However, if we can find U.S. schools that have different linkage mechanisms, then we may test whether varying methods of linkages are also associated with the predicted differences in student motivation and achievement.

Some say that the best way to improve American students' discipline and school achievement is to enhance teacher status, prestige, and respect. While greater teacher prestige may increase student respect, the degree of teacher authority may be more important than prestige in affecting students' behaviors. If teachers have the responsibility to influence important student outcomes, then we would expect students to be more responsive to teachers' demands. As previously noted, grades strongly affect which

students are admitted to college, but grades have little effect on employers' hiring decisions. It is therefore not surprising that, in general, college-bound students are highly responsive to teachers' demands, but work-bound students are not.

Links could also influence the motivation and behavior of students entering the work force. It seems possible that school linkages can perform the functions of networks, offering quality control and sanctions for poor performance. Do links between schools and employers provide an institutional version of family networks? In linkage systems, do students working for an employer feel that they are representing their school and that friends and neighbors in younger classes will be affected by their own behavior? If so, does this give them greater incentive to work hard in their jobs? Do programs that encourage graduates to come back to advise students on "career day" raise their sense of representing their school at work?

Do Linkages Affect Job Outcomes?

In Japan, linkages and grade-based selections may encourage employers to invest in students with the best grades, particularly if the employer has strong links with the school. We do not know whether this is a causal relationship and, if it is, whether it would lead to the same outcome in the United States. After identifying schools with strong and weak links, subsequent study could examine whether varying relationships have different effects on employers' incentives to invest in new recruits.

We need to study schools with special links to employers. We might study whether links vary in different environments. Are school-employer ties stronger in small towns? Do different kinds of schools and employers

have different types of relationships and, if so, for which jobs and what programs in school? After studying those questions, we would investigate the effects of various types of links on initial jobs, on-the-job training, advancement opportunities, and turnover, focusing attention on programs with long-term links.

The proposed studies would highlight the relations between public high schools and employers because they are probably the most relevant for social policy. However, systematic studies of private vocational schools and graduate management schools could also help us understand the workings of school-employer linkages.

Planned Variation Experiments

The best way to discover the effects of any social program is to set up randomized assignment of people to programs. Given the great costs of doing so, it might be wise to initiate this investigation after receiving tentative results from the studies of existing programs. Despite their cost, these linkage programs will be no more expensive than many of the school-employer partnership programs that exist or have been tried.

Recent reforms have attempted to address the difficulties youths face in the school-to-work transition, and many of these programs have been very expensive. For instance, the New York City Partnership involved "the total redesign of 25 high schools over a period of several years, the provision of work and external learning experiences for each of the nearly 300,000 high school students in the school system, and the provision of an adult mentor to be available for one-to-one discussions with each junior and senior high school student" (Timpane, 1984, p. 391). According to Timpane, "Corporate executives did not flinch at the size of the undertaking.... Plans such as

this one reflect vision and risk-taking--by both business and education--on an unprecedented scale."

In Chicago's adopt-a-school program, 73 corporations have adopted 86 public schools. For instance, Commonwealth Edison sends 16 employees to a middle school to teach the principles involved in supplying energy to an urban neighborhood. Projects help students develop math, reading, and verbal skills. The program has resulted in higher reading achievement scores, compared with those of a control group.

Describing a comprehensive program in California, Kirst (1982) noted, "Typically, the state of California has charged ahead of the rest of the nation. The California Business Roundtable...developed an educational agenda for the state, which included minimum graduation standards, beefed-up state testing, state guidelines for the curriculum, stronger attendance and disciplinary laws, a longer school day and year, deregulation of state restrictions on teacher dismissals and layoffs, and new concepts of teacher training.... In exchange for these reforms, public education received several hundred million dollars added to its budget."

What is striking in all these programs is the fact that they totally ignore the employment process itself. Although partnerships between schools and employers are improving educational standards and employers are offering help to schools, the projects ignore the most powerful source of incentives. These programs are remarkable in what they do not offer--job links. Despite their apparently sincere, earnest, and expensive efforts, the core features of the relationship between school and work are ignored. Employers are not giving any greater weight to grades, and they are not offering jobs as incentives to students to improve their marks. Consequently, these reforms

have done little to strengthen the signals employers receive about applicants' abilities or to improve the incentives for youths to raise their school grades.

The Boston Compact is an important exception because it does offer jobs, and it makes them contingent on grades. In the Boston Compact, business leaders guarantee a specific number of jobs for Boston high school graduates. In return, schools agree to take steps to improve scores on achievement tests of basic skills. Students are guaranteed a summer job and a part-time job the year after they graduate in many cases, but they must maintain satisfactory performance (Hahn, 1985).

However, even the Boston Compact has some potential limitations. First, the reward is contingent on schools' average achievements, not each student's achievement, and the question is raised whether a school-wide average provides sufficient incentive to individual students. Second, while students must graduate to benefit from the program, they have no incentive (other than raising the school's overall average) to increase their achievement above the minimum graduation requirements. Students just above this minimum may feel they have little reason to improve their grades.[2] Third, the program descriptions mention part-time, but not full-time, jobs after graduation. If this is the only reward, it indicates a limited incentive.

From the viewpoint of our model, the greatest problem with the Boston Compact is that it offers incentives only for minimum standards. It does not offer any impetus or better signals for students to raise their

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[2] This is similar to the problem of work incentives for people earning wages just above welfare payments.

achievement above the minimum. Nor does the program offer better jobs, more training, or better advancement chances to students with higher achievement. Programs that offer employment training and advancement opportunities could make job selections contingent on students' grades. The Boston Compact does try to offer incentives to schools and to marginal students, but it does not go far enough from our viewpoint.

Creating programs that extend the ideas of the Boston Compact in the ways proposed would not be much more expensive than many existing programs. Moreover, because such programs would be focused on linking school grades and hiring, it seems quite possible that they would offer much greater benefits than one would expect. We propose that such programs be implemented according to the following:

- Programs might vary in the strength of the linkage, the types of jobs involved, and the kinds of students enrolled.
- Programs might use grades or standardized test scores as hiring criteria.
- Programs must continue over time, and we would expect that they would have increasingly large effects on students' achievement, as knowledge of incentives filters down to students in lower grades.

Programs might also vary according to whether links are institutional or personal. The Japanese system creates links between employers and schools and personal relationships between recruiters and the teachers responsible for placement. It is difficult to separate institutional and personal influences in this situation. However, American schools could develop institutional links without personal ones, just as they could have personal contacts without having formal institutional ones. Experimental programs could vary on these dimensions, so that one could examine the

influence of these types of linkages on youths' school performance and on youths' success at finding jobs.

Japan's linkage system provides a strong model to contrast with U.S. practices. It has many desirable features, and it leads to many favorable outcomes. In its entirety, the system is probably more radical than Americans would implement. Yet we may use it as a source of ideas for practices to try in experimental programs: formal links between schools and employers, informal links between teachers and recruiters, schools responding to employers' specific hiring needs, employers supporting schools' authority to increase grading standards and to evaluate students, employers using clearly defined hiring criteria based on school performance that offer incentives to all students, and so forth. As such, the Japanese system provides a useful model of practices that illustrates alternatives to ours.

Conclusion

This analysis indicates that the diploma alone is insufficient as a signal or incentive to improve work entry. Grades are the logical choice for a more fine-tuned signal and incentive, but grades have value to employers only if teachers establish meaningful standards, and grades will have value to students only if employers will take them into account. A linkage system similar to Japan's indicates one way that grades might have increased value. We have few guidelines to judge the applicability of school-employer linkages in the United States, but those few examples appear to work well and lead to some of the desired outcomes. Obviously, our knowledge in this area is currently very meager, and much more study is needed.

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